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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,070

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Shinichiro Tanaka

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EXAMINER

KIANNI, KAVEH C

ART UNIT

PAPER NUMBER

2883

MAIL DATE

DELIVERY MODE

07/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,070	<b>Applicant(s)</b> TANAKA ET AL.	
	<b>Examiner</b> K. Cyrus Kianni	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### **Claim Objections**

Claims 6 is objected to because of the following informalities: in page 3, 3<sup>rd</sup> line the limitation 'which *may* comprise' is indefinite and/or not a concise limitation. Appropriate correction is required,

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. (US 20070064187).

Takeda teaches a liquid crystal display device (shown in at least fig. 1-17 and 147), comprising: a first substrate on which pixel electrodes are arranged in a matrix state

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(see at least fig. 1-5, 17 and 147 and parag. 0279, 0282, 0310); a second substrate on which a transparent electrode--parag. 0275-- is formed (see at least fig. 1-5, 17 and 147 and parag. 0279, 0282, 0310); orientation controlling means that are formed either on said first substrate or said second substrate (see at least fig. 1-5, 17 and 147, item orientation control means); alignment films deposited on said first and second substrates to which vertical alignment treatment is applied (shown in at least fig. 1-17 and 147, also at least 0516-0522); and a liquid crystal layer having negative dielectric anisotropy, which is sandwiched between said first and second substrates, (shown in at least fig. 1-17 and 147 and 0480) wherein liquid crystal molecules are vertically aligned when no electric field is applied to the liquid crystal layer, and tilt to be aligned in directions controlled by said orientation controlling means when an electric field is applied to the liquid crystal layer (see at least fig. 7 and 0283), wherein an arrangement of said orientation controlling means in two types of pixels used as unit pixels is linearly symmetrical and wherein approximately the same number of the two types of pixels are irregularly arrayed (shown in at least fig. 163 and 56, 114 and 160; wherein as shown at least two of type of pixels are symmetric, while other two are irregular ), and wherein each of said unit pixels provides a color filter, which may comprise any one color of a plurality of color filters (see at least fig. 1-17 and parag. 0310, 0312; also fig. 45-46, 113-116, and parag. 0348, 0337, 0538);

wherein the orientation controlling means comprise belt-shaped protrusions that are formed at least on either the first substrate or the second substrate, and slits corresponding to said protrusions are formed on the other substrate in

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which no protrusions are formed (see at least parag. 0060 and 0061 for fig. 42-43); wherein the slits are formed on said pixel electrodes, the belt-shaped protrusions being formed on the second substrate corresponding to said slits (see at least fig. 132 and 0489), said first polarizing plate is arranged outside the first substrate, and the second polarizing plate having a transparent axis which is orthogonal to the transparent axis of the first polarizing plate is arranged outside the second substrate (see at least parag. 0279); wherein the protrusion comprise one or more L-shaped protrusions and one or more linear protrusions lying parallel with the L-shaped protrusions, and the slits consist of one or more of L-shaped slits lying parallel with the L-shaped protrusions and one or more linear slits lying parallel with said linear protrusions (shown in at least fig. 56, 114 and 160); wherein the protrusions and the slits are linear in form lying parallel with each other, and are arranged so as to create an angle of approximately 45.degree. in relation to the transparent axes of the first polarizing plate and the second polarizing plate (shown in at least fig. 56, 114 and 160 and see at least parag. 0295 and 0377).

However, Takeda does not explicitly teach all above limitations in a single embodiment. It would have been obvious to a person of ordinary skill in the art when the invention was made to combine different embodiments of Takeda in which they are closely compatible and since such apparatus provides realize a division of orientation directions of the liquid crystalline molecules for improving the viewing angle performance in the VA LCD (see 0013-0016).

***Response to Arguments and Amendment***

Applicant's argument filed on 4/10/08 have been fully considered but they are not persuasive. Applicant asserts that Takeda does not teach 'wherein an arrangement of said orientation controlling means in two types of pixels used as unit pixels is linearly symmetrical and approximately the same number of the two types of pixels are irregularly arrayed'. The applicant's assertions is based on a few excerpts of Takeda and the notion associations of including size, shape and protrusion configuration of "any type of pixel". The examiner responds that the limitation "two types of pixels" is broad term that is devoid of the associated terms the applicant is comparing with. The drawings of Takeda by themselves are part of invention not necessarily need to be explicitly specified and the arrangements and/or particular characteristics of the pixels such as association with a type of color can interpreted as 'type of pixels". Thus applicant is advised to be specific such as limitations that can reveal particular configuration of the protrusions.

- Applicant is kindly advised to appropriately narrow the scope of the invention in order to allow the case.

***THIS ACTION IS MADE FINAL***

This action in response to applicant's amendment made FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing

date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/K. Cyrus Kianni/

Primary Examiner, Art Unit 2883

July 24, 2008